

PSC NO: 3 TELEPHONE
ALLTEL New York, Inc.
Initial Effective Date: 5/30/03

Section: 11 Leaf: 1
Revision: 0
Superseding Revision:

SECTION 11 - ADVANCED DIGITAL SERVICES

ADVANCED DIGITAL SERVICES (ADS) BASIC RATE ACCESS (BRA)

11.A.1 GENERAL

- A. Advanced Digital Services (ADS) are a public network-based set of communications services that make it possible to send, receive, and modify information using regular telephone lines. These services are based on NI-1, the first set of the National Integrated Services Digital Network (ISDN) standards. ISDN provides end-to-end digital communications and gives the ability to transmit data and voice over the same telephone line simultaneously (a user can send information from a personal computer and talk to the person on the other end of the line at the same time). This functionality is provided via channelized transport facilities. The ISDN architecture consists of digital central office switching systems which connect Basic Rate Access (BRA) equipped lines to customers' premises.
- B. ADS BRA is an optional service arrangement that requires an access line and can be used in conjunction with a customer's residential service, individual business line or Centrex service. It uses the ISDN architecture to provide the customer with the capability to transmit voice and data simultaneously over the same digital line. Under various optional arrangements, BRA provides the customer with access to Circuit-Switched Voice Services, Circuit-Switched Data Services, and Packet-Switched Data Services.
- C. An ADS BRA arrangement obtains its capabilities from an ISDN-capable, Telephone Company central office switch. The BRA ISDN arrangement provides two communications channels (but using only one physical line) between a telephone (or computer, fax machine or other equipment) and the digital central office. These channels are called Bearer, or B Channels. Another channel, called the Delta or D Channel, is used for signaling purposes and in some applications can be used for low speed packet data communications. The complete BRA ISDN line is known as 2B+D.
 - 1. B Channel - The B Channel is a bi-directional synchronous channel capable of supporting digital transmission speeds of up to 64 kilobits per second (kbps). Some serving central offices may be limited to speeds of 56 kbps. ISDN interconnection to or through non-ISDN equipped central offices will be sub-rated to 56 kbps per channel. Each B Channel may be configured in one of the following ways:
 - a. Circuit-Switched Voice - Allows the user to originate and receive only voice calls over a single circuit-switched B Channel.
 - b. Circuit-Switched Data - Allows the user to originate and receive only data calls over a single circuit-switched B Channel.
 - c. Alternate Circuit-Switched Voice/Data - Allows the user to originate and receive either voice calls or data calls over a single circuit-switched B Channel, but not simultaneously.
 - d. B Channel Packet-Switched Data Service (where available) - Allows the user to originate and receive X.25 packet data calls on the B Channel.

Issued by: Vice President, State Government Affairs, Little Rock, Arkansas